2008 Ram Snowplow Installation

INTRODUCTION

The factory-installed Snowplow Preparation Groups (or their equivalent components) are recommended and listed for each vehicle. The normal warranty applies to Dodge Ram trucks that have after market snowplows installed in accordance with these guidelines.

Maximum Vehicle Loading Requirements:

Installation of snowplows and their mounting hardware may result in a vehicle weight distribution or a front axle loading which is detrimental to brake performance or which exceeds the front GAWR. The following load requirements are applicable:

1. The loaded vehicle, including all after market accessories, the snowplow system, passengers, and cargo, must not exceed the gross vehicle weight (GVW), front or rear gross axle weight (GAW) ratings specified on the Safety Compliance Certification label located in the driver's side door opening.
2. The empty truck with all permanently attached accessories and snowplow components must not exceed 62 percent of its total weight on the front axle to comply with FMVSS/CMVSR 105 Brake Certification. Permanently attached snowplow parts are those parts not easily removed when the blade is removed. The permanently attached parts are: sub-frame, hydraulic pump, hydraulic lift cylinder, lamps, wiring, snowplow controls, etc.

If the front axle loading exceeds either 62 percent of the empty truck total weight, or the front GAWR, ballast-compensating weight must be securely attached at the rear of the truck to bring front axle weight within weight specifications as defined above.

Applications – 4x4 Only (Package Code AHD)

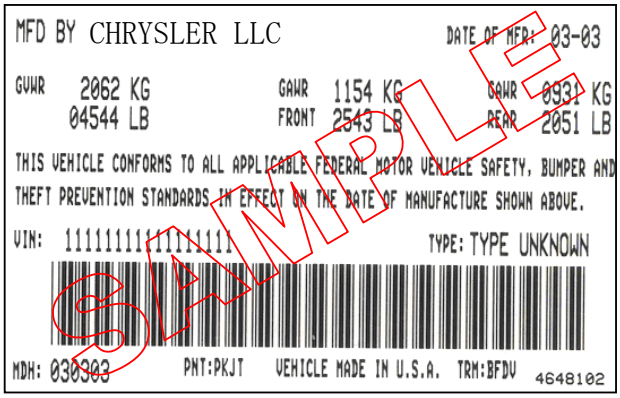
Model	Wheel Base	P/U Box	GVWR Low/High	Front GAWR	Engine
2500 Reg. Cab	140.5"	8.0'	8,650 / 9,000	5,200	EZA, ETH
3500 Reg. Cab	140.5"	8.0'	11,500 / 12,200	5,200	EZA, ETH
2500 Quad Cab	140.5"	6.5'	8,800 / 9,000	5,200	EZA,ETH
2500 Quad Cab	160.5"	8.0'	8,800 / 9,000	5,200	EZA, ETH
3500 Quad Cab	140.5"	6.5'	9,900 / 9,900	5,200	ETH
3500 Quad Cab	160.5"	8.0'	9,900 / 12,200	5,200	EZA, ETH

Engine Codes: EZA: 5.7L V8 Gas
ETH: 5.9L HO Diesel

Notes for Heavy Duty Snowplows:

- At any time, the maximum number of occupants in the truck must not exceed two
- Under Any Circumstances, vehicles should NOT exceed GVWR (Gross Vehicle Weight Rating), Front or Rear GAWRs (Gross Axle Weight Ratings)
- Snowplow prep packages are NOT available with Sport (AAG) package
- Cargo capacity will be reduced by the addition of options.
- Ballast should be securely attached inside the box at 9 inches from the rear tailgate for pickups.
- The total weight of permanently attached hardware should not exceed 125 lbs.
- Max snowplow weight should not exceed values for models shown in this section.

The snowplow weights shown in the charts on the next page are the manufacturer recommendations based on maximum vehicle option content. Other plow weight values may be possible, based on the specific capability of the vehicle being modified (actual weight, GVWR, front and rear GAWR). The maximum allowable plow weight can be determined by the dealer /supplier / manufacturer. In all cases, the loaded vehicle weight, including the snowplow system, all aftermarket accessories, driver, passengers, options, and cargo, must not exceed either the Gross Vehicle Weight (GVWR) or Gross Axle Weight (GAWR) ratings. The GVWR and GAWR weights are specified on the Safety Compliance Certification Label on the driver's side door opening.



Safety Compliance Certification Label

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ST Model

4X4 Pickup w/Driver and One Passenger			FGAWR All	2500			
				Manual	Automatic	GVWR	Code
7L62 Regular Cab	140.5"	5.7L V8 @	5,200	850	850	8,650	Z7A
		6.7L Turbo Diesel	5,200	525	575	9,000	Z7C
7L41 Quad Cab	140.5"	5.7L V8 @	5,200	850	850	8,800	Z7B
		6.7L Turbo Diesel	5,200	**N/R**	525	9,000	Z7C
7L42 Quad Cab	160.5"	5.7L V8 @	5,200	850	850	8,800	Z7B
		6.7L Turbo Diesel	5,200	**N/R**	**N/R**	9,000	Z7C

4X4 Pickup w/Driver and One Passenger			FGAWR All	3500 SRW				3500 DRW			
				Manual	Automatic	GVWR	Code	Manual	Automatic	GVWR	Code
8L62 Regular Cab	140.5"	5.7L V8	5,200					850	850	11,500	Z8E
		6.7L Turbo Diesel	5,200					500	525	12,200	Z8D
8L41 Quad Cab	140.5"	5.7L V8	5,200								
		6.7L Turbo Diesel	5,200	525	575	10,100	Z8B				
8L42 Quad Cab	160.5"	5.7L V8	5,200					850	850	11,500	Z8E
		6.7L Turbo Diesel	5,200	**N/R**	**N/R**	10,100	Z8B	**N/R**	**N/R**	12,200	Z8D

Note:

- Snowplow Weight doesn't include attaching hardware, and worst case seating (buckets). Except where Bench Seat only available.
- Calculations are based upon vehicle with maximum options.
- N/R = Not Recommended for snowplow application
- SRW = Single Rear Wheel.
- DRW = Dual Rear Wheel.
- @ = Snow Chief Model (AD2)
- All Mega Cabs not Recommended for snowplow application.
- Dodge Ram 1500 is not recommended for snowplow application.

SLT Model

4X4 Pickup w/Driver and One Passenger			FGAWR All	2500			
				Manual	Automatic	GVWR	Code
7H62 Regular Cab	140.5"	5.7L V8 @	5,200	850	850	8,650	Z7A
		6.7L Turbo Diesel	5,200	500	550	9,000	Z7C
7H41 Quad Cab	140.5"	5.7L V8 @	5,200	850	850	8,800	Z7B
		6.7L Turbo Diesel	5,200	**N/R**	**N/R**	9,000	Z7C
7H42 Quad Cab	160.5"	5.7L V8 @	5,200	850	850	8,800	Z7B
		6.7L Turbo Diesel	5,200	**N/R**	**N/R**	9,000	Z7C

SLT Model

4X4 Pickup w/Driver and One Passenger			FGAWR All	3500 SRW				3500 DRW			
				Manual	Automatic	GVWR	Code	Manual	Automatic	GVWR	GVWR
8H62 Regular Cab	140.5"	5.7L V8	5,200					850	850	11,500	Z8E
		6.7L Turbo Diesel	5,200					**N/R**	500	12,200	Z8D
8H41 Quad Cab	140.5"	5.7L V8	5,200								
		6.7L Turbo Diesel	5,200	**N/R**	**N/R**	10,100	Z8B				
8H42 Quad Cab	160.5"	5.7L V8	5,200					850	850	11,500	Z8E
		6.7L Turbo Diesel	5,200	**N/R**	**N/R**	10,100	Z8B	**N/R**	**N/R**	12,200	Z8D

Note:

- Snowplow Weight doesn't include attaching hardware, and worst case seating (buckets). Except where Bench Seat only available.
- Calculations are based upon vehicle with maximum options.
- N/R = Not Recommended for snowplow application
- SRW = Single Rear Wheel.
- DRW = Dual Rear Wheel.
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Laramie Model

4X4 Pickup w/Driver and One Passenger			FGAWR All	2500			
				Manual	Automatic	GVWR	Code
7P41 Quad Cab	140.5"	5.7L V8 @	5,200	850	850	8,800	Z7B
		6.7L Turbo Diesel	5,200	**N/R**	**N/R**	9,000	Z7C
7P42 Quad Cab	160.5"	5.7L V8 @	5,200	850	850	8,800	Z7B
		6.7L Turbo Diesel	5,200	**N/R**	**N/R**	9,000	Z7C

Laramie Model

4X4 Pickup w/Driver and One Passenger			FGAWR All	3500 SRW				3500 DRW			
				Manual	Automatic	GVWR	Code	Manual	Automatic	GVWR	CODE
8P41 Quad Cab	140.5"										
		6.7L Turbo Diesel	5,200	**N/R**	**N/R**	10,100	Z8B				
8P42 Quad Cab	160.5"	5.7L V8	5,200					850	850	11,500	Z8E
		6.7L Turbo Diesel	5,200	**N/R**	**N/R**	10,100	Z8B	**N/R**	**N/R**	12,200	Z8D

Note:

- Snowplow Weight doesn't include attaching hardware, and worst case seating (buckets). Except where Bench Seat only available.
- Calculations are based upon vehicle with maximum options.
- N/R = Not Recommended for snowplow application
- SRW = Single Rear Wheel.
- DRW = Dual Rear Wheel.
- @ = Snow Chief Model (AD2)
- All Mega Cabs not Recommended for snowplow application.
- Dodge Ram 1500 is not recommended for snowplow application.

ELECTRICAL CONSIDERATIONS

HEADLAMPS

Each headlamp bulb is independently Pulse Width Modulated (PWM) controlled by an electronic control module. This module also monitors each bulb to detect failures (i.e. bulb burned out) on both the high beam and low beam filaments. When this failure occurs, the "LAMP OUT" telltale indicator in the instrument cluster will illuminate whenever the ignition is in the RUN position. The module also provides the DRL function when required and therefore there is no separate DRL controller.

Therefore, the any aftermarket wiring kits should use the following guidelines:

- Disconnection of the OEM headlamps will be interpreted by the electronic module as a burned out bulb therefore; it is recommended that the aftermarket lamps utilize the OEM headlamp circuits. NOTE – the aftermarket bulbs must draw no more current than the OEM bulbs (9007QL).
- Provide a means of allowing the customer to manually switch between the OEM headlamps and the aftermarket headlamps. Connection of both the OEM and aftermarket lamps at the same time will cause the control module to disable the circuit due to an overload condition and illuminate the "LAMP OUT" indicator in the instrument cluster.
- Also, assure that the OEM headlamps cannot be inadvertently disabled when the aftermarket lamps are disconnected (i.e. when the snowplow is not on the vehicle).
- Do NOT splice the right and left headlamp circuits together. Connection of both lamps to the same circuit will cause the control module to disable the circuit due to an overload condition and illuminate the "LAMP OUT" indicator in the instrument cluster.

TURN LAMPS

Each turn lamp - front driver, front passenger, rear driver, and rear passenger is independently controlled by an electronic control module. This module also monitors each bulb to detect failures (i.e. bulb burned out). When this failure occurs the "LAMP OUT" tell tale indicator in the instrument cluster will illuminate whenever the ignition is in the RUN position.

In order to successfully connect the plows turn signal lamps to the vehicle's wiring the following must be done:

- The front driver circuit is L61, 20 gauge WT/LG
- The front passenger circuit is L60, 20 gauge WT/TN
- Both L60 & L61 need to be spliced into in order to control a set of relays (please see attached drawing on page 5). These relays are necessary for proper function of the turn signals while the plow lamps are attached to the vehicle's electrical system. Failure to do so will cause the front turn signals to be inoperable or intermittent.

NOTE: The electronic module is only capable of detecting bulb failure in the vehicles lamps.

PARK LAMPS

The vehicle park/tail/license/marker/tailgate lamps are partitioned into three subsets – driver side, passenger side, and trailer tow connectors with the total vehicle load balanced between the driver and passenger side. Aftermarket wiring kits must have provisions that:

- Maintain separation between all three subsets. The preferred method for aftermarket park lamps is to use one of these circuits as a sense line to control a relay to activate aftermarket lamps. The relays power feed needs to be a fused battery feed provided by the kit
- If aftermarket park lamps need to be wired directly to the vehicle circuits. The load should be balanced between driver and passenger side, with neither side sourcing more than 2A of additional load current.
  - The driver side circuit is L7, 20 gauge WT/YL wire – see wiring schematics. The easiest place to find and splice into this circuit is in the harness bundle near the connection to the driver headlamp assembly
  - The passenger side circuit is L70, 20 gauge WT/GY wire – see wiring schematics. The easiest place to find and splice into this circuit is in the harness bundle near the connection to the passenger headlamp assembly

IGNITION RUN FEED

If required, the only location to obtain an ignition run feed is to splice into circuit F986. Circuit F986 18 gauge PK/YL is a dedicated Ignition Run feed to the Cigar Lighter.

The best location to splice into F984 is right at the connection into the back of the Cigar Lighter. This connection can be accessed by removing the center stack trim piece which the Cigar Lighter is mounted into. There will be two

wires going into the connector. Circuit F984 is the 20 gauge PK/YL wire. The other wire will be (Z736) BK/YL tracer.

The spliced in aftermarket wire should be a minimum 18 gauge high temperature rated wire due to the 20A fuse for the Cigar lighter.
The load placed on the aftermarket circuit should not exceed 2A. Exceeding 2A will potentially blow the Cigar Lighter fuse when activating the Cigar lighter and the aftermarket load simultaneously.

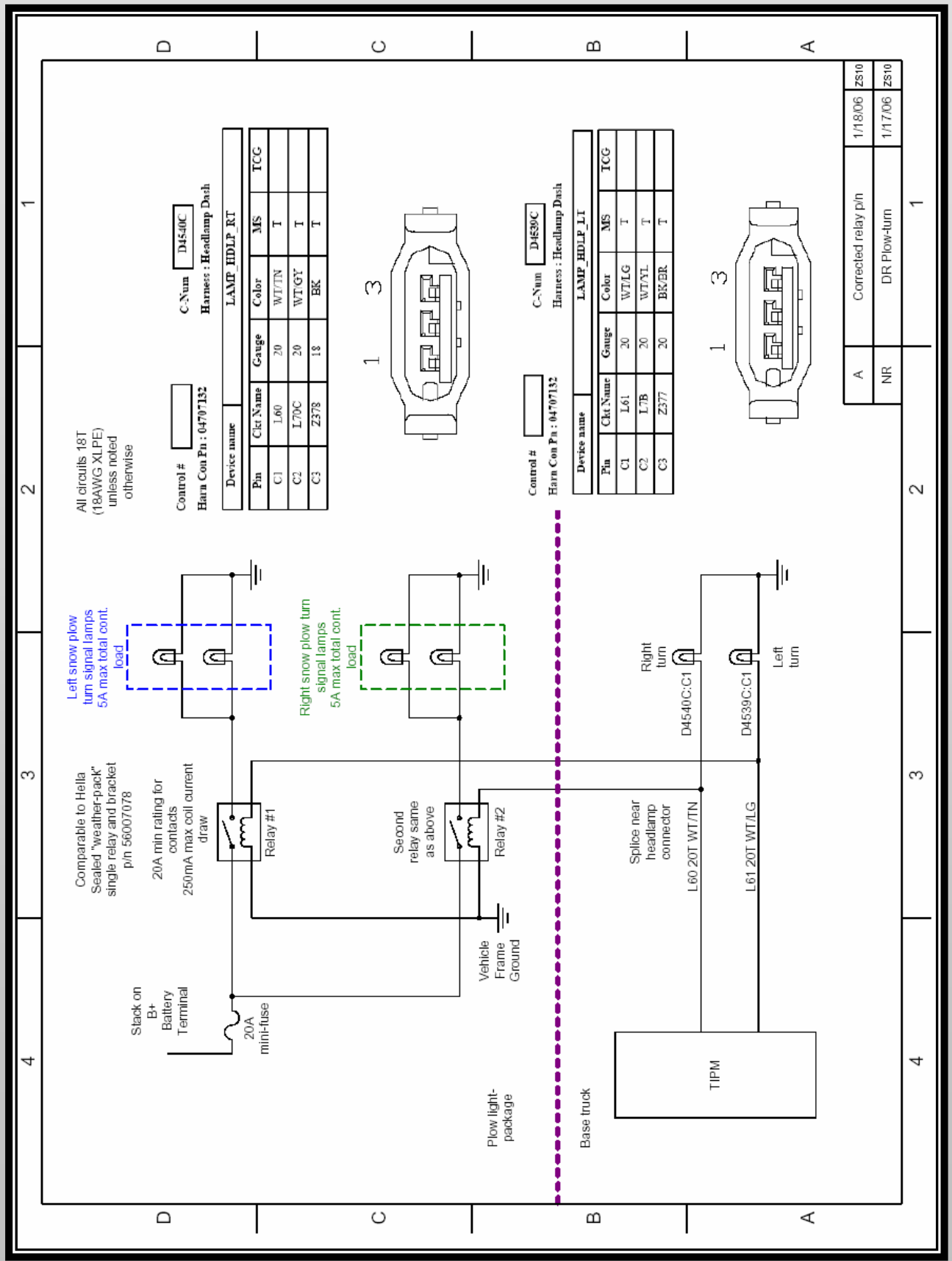
Note: Circuit F984 is an Ignition Run and ACCESSORY feed, meaning it will be hot with the ignition key in the Run position and also the Accessory position.

Note: If more than a 2A ignition feed is required, then the aftermarket application will have to add an external relay, with appropriate battery fusing and use the recommended F984 circuit to turn the relay on and off.

Note: There is no other acceptable place to find a vehicle Ignition Run source, in cab or underhood.

2007 Ram Snowplow Installation

09/20/2006


All circuits 18T (18AWG XLPE) unless noted otherwise
Control #
Harn Con Pn : 04707132
C-Num D4540C
Harness : Headlamp Dash
Device name LAMP_HDLP_RT
Pin | Ckt Name | Gauge | Color | MS | TCG
C1 | L60 | 20 | WT/TN | T
C2 | L70C | 20 | WT/GY | T
C3 | Z378 | 18 | BK | T
Control #
Harn Con Pn : 04707132
C-Num D4539C
Harness : Headlamp Dash
Device name LAMP_HDLP_LT
Pin | Ckt Name | Gauge | Color | MS | TCG
C1 | L61 | 20 | WT/LG | T
C2 | L7B | 20 | WT/YL | T
C3 | Z377 | 20 | BK/BR | T
A | Corrected relay p/n | 1/18/06 | ZS10
NR | DR Plow-turn | 1/17/06 | ZS10
Left snow plow turn signal lamps 5A max total cont. load
Right snow plow turn signal lamps 5A max total cont. load
Comparable to Hella Sealed "weather-pack" single relay and bracket p/n 56007078
20A min rating for contacts
250mA max coil current draw
Relay #1
Second relay same as above
Relay #2
Stack on B+ Battery Terminal
20A mini-fuse
Vehicle Frame Ground
Plow light-package
Base truck
Splice near headlamp connector
L60 20T WT/TN
L61 20T WT/LG
D4540C:C1
D4539C:C1
Right turn
Left turn
TIPM